

REMARKS

Claims 1-43 remain in this application. Claims 1, 11, 21, and 31-34 have been amended. No new matter has been added by way of this amendment and the Applicant respectfully requests reconsideration and review of the application.

Before addressing the merits of the rejection based on prior art, a brief description of the present application is provided. The present application is directed toward graphics applications in digital data network environments (such as Ethernet networks, LANs and/or WANs) and not analog networks (such as CATV networks). Computers on a digital network can be categorized as two types: servers and clients. In addition, a client can be further limited to a thin client (and not a thick client). A thin client is a small, stateless, "plug and work" desktop computer whose main function is to process all input and output for the user and to manage communication with at least one server. All other computational tasks (or services) for the user are performed on the server, which is shared amongst a community of clients. This off-loading of computational tasks (e.g., clipping before scaling) that normally would be performed by the client into the server permits simplification of the client (i.e., the thin client) in the digital network.

In an embodiment of the invention, a server acquires video data for transmission to a thin client that displays the video data. After acquiring the video data, the server performs the necessary clipping to bring the video data (having various video protocols) into conformance with a display on the client before transmission to a receiver on the client. A transmitter on the server then transmits the clipped video data over a local digital data network (i.e., a LAN) to the receiver on the thin client for display. The significance of clipping video data at the server end is that the bandwidth requirements at the network for transmission of the video data are reduced due to the clipping (or extraction) of the clipped (or occluded) video data by the clipping process at the server. Moreover, this off-loading of the clipping duties from the thin client to the server permits

simplification of the thin client because software and hardware for performing these duties are not needed at the thin client.

In addition, an embodiment of the invention achieves a further reduction in bandwidth requirements and further simplification of the thin client by performing downscaling of video data at the transmitter on the server and upscaling of the video data at the receiver on the thin client. One reason for the segregation of scaling duties (upscale only at the receiver and downscale only at the transmitter) is that scaled-down video data requires lower network bandwidth to transmit through the local area network. By downscaling video data at the transmitter, the present invention avoids sending video data to the receiver that would be discarded later by the receiver. Moreover, this segregation of scaling duties permits further simplification of the client since resources, such as software code for downscaling video data, are not needed at the client.

In the current Office Action dated December 18, 2002, Claims 1-43 are rejected under 35 U.S.C. §103(a) as being unpatentable over Nguyen in view of Munson. These rejections are respectfully traversed.

Specifically, the Office Action in page 3 acknowledges that "Nguyen *fails* to specially disclose clipping image." To make up for this deficiency, the Office Action indicates that Nguyen "generally discloses video clip in figure 4 (col. 4, lines 27-52) by compress and decompress video images." The Office Action then indicates that, "Munson specifically teaches clipping image by clipping a video image . . . prior to being buffered in the graphics memory." The Office Action therefore concludes that, "it would have been obvious to combine the teaching of Munson to the system of Nguyen."

The main problem with the above conclusion is that Nguyen does not pass compressed video data to an end station for display. Nguyen is related to delivering of video data (a video clip and not clipping of video data) over an analog network separated from a digital data network to an end station for display. The purpose for delivering video data over the analog network to the end station in Nguyen is that the analog network has a lower cost and a higher bandwidth. However, in order to utilize

the analog network, Nguyen discloses that its video data has to be first decompressed (and D/A converted) before it can reach its end station for display. By contrast, the present invention is directed to the use of a digital network for the delivery (and transport) of clipped video data from the server **directly** to the actual terminal device for display in order to simplify the terminal device (i.e., the thin client). (It should be noted that the server of the present invention contains the functionality of the digital network portion of Nguyen). Thus, because Nguyen addresses a completely different problem of transporting video data over a low cost, high bandwidth analog network at the expense of having to first decompress the video data before transmitting it to its end station, there can be no suggestion, teaching, or motivation to combine Nguyen with the Munson prior to this invention.

In addition, since Nguyen teaches that its video data has to be decompressed before it can reach its end station for display, Nguyen actually teaches away from a thin client that directly receives clipped video data for display.

Nguyen is further deficient from the present invention in that the server in Nguyen can only communicate video data with the end station via a separate converter (or C-box) that is physically separated by the digital and analog networks from the server and the end station. By contrast, it should be appreciated that, unlike Nguyen, the server of the present invention can communicate video data directly with the client of the present invention for display of the video data without the need of a separate converter (e.g., C-box).

Lastly, the Munson reference is only included for its disclosure of clipping of video data. First of all, it should be noted that there is no teaching to combine the implementations of digital data transfer within a single computer (having a graphics memory for storing the clipped video data) in Munson with the transmission of video data from a server to an end station over an analog network in Nguyen. That is, the combination of the single computer system in Munson with Nguyen's analog system is nothing more than hindsight reconstruction based on the teaching of the present

invention. Regardless, Munson (either alone or in combination with Nguyen) otherwise fails to make up for the deficiencies of Nguyen discussed above.

Thus, the claim limitations as previously presented are not shown or suggested by Nguyen and Munson because they do not teach all the limitations in the claims and there is no teaching to combine Nguyen with Munson. Nevertheless, in order to expedite allowance and/or to place the claims in better form for appeal, the Applicant hereby amends independent Claims 1, 11, 21, and 31-34 and dependent Claims 6 and 42 to further clarify the claims (e.g., by reciting a server that transports clipped video data over a digital network directly to a thin client in the claims).

The Applicant has also enclosed a Notice of Appeal, appealing the decision in the Final Office Action to the Board of Patent Appeals and Interferences.

In view of the foregoing, the Applicant respectfully submits that Claims 1-43 are in condition for allowance. Reconsideration and withdrawal of the rejections is respectfully requested, and a timely Notice of Allowability is solicited. To the extent it would be helpful to placing this application in condition for allowance, the Applicant encourages the Examiner to contact the undersigned counsel and conduct a telephonic interview.

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A check in the amount of \$320.00 is enclosed for the Notice of Appeal, pursuant to 37 C.F.R. § 1.17(b). The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0639.

Respectfully submitted,



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